AMENDMENTS TO THE SPECIFICATION

Delete the paragraph bridging pages 4/5 and insert the following paragraph:

It is expected that the piston temperature is elevated to about 450-500°C, and the combustion pressure increases to about 20-25 MPa particularly in a diesel engine piston, as the combustion temperature is elevated. Accordingly, the piston should be resistant to such high temperature and pressure. In addition, the piston should have high seizure resistance, in order that scuffing, seizure, etc. do not occur by contact with a mating member such as a cylinder liner, a piston pin, piston rings, etc. during sliding under high thermal and mechanical load conditions. For higher power and lower fuel consumption of an engine, there are demands to reduce inertia during the reciprocal movement of a piston, to reduce the weight of a piston, to reduce the friction of a piston, to reduce engine noise, to downsize an engine ~~room~~, etc. It is thus desired to make the piston thinner, reduce the compression height, etc.

Delete the paragraph bridging pages 7/8 and insert the following paragraph:

Integral casting to a near-net shape makes the assembling and connection of components unnecessary, and reduces the working cost. Accordingly, the integrally cast piston advantageously enjoys an extremely lower production cost than the assembled, forged piston of U.S. Patent 5,136,992, which requires the machining of a cooling hollow portion, the fixing of a cover to the hollow portion, and the assembling of a head portion to a skirt portion. In addition, because the integrally ~~forged~~ cast piston does not need a space for machining the cooling hollow portion, it can have a low compression height, so that it can be made lighter and smaller. The integral casting of a head portion with a pin boss portion and a skirt portion can produce a gasoline engine piston needing no cooling hollow portion. Further, integral casting including a cooling hollow portion can produce a piston suitable for diesel engines. It is particularly suitable

for a direct injection diesel engine piston comprising a combustion chamber in a head portion, and a cooling hollow portion near the combustion chamber.

Delete the paragraph bridging pages 13/14 and insert the following paragraph:

S has functions of forming sulfides with Mn and Cr for improving seizure ~~thermal cracking~~ resistance, and S-containing inclusions for improving the machinability of the cast steel. However, when S exceeds 0.2%, excess S-containing inclusions are formed, resulting in the deterioration of the thermal cracking resistance. To form sulfides in good balance to provide thermal cracking resistance, seizure resistance ~~and S-containing inclusions in good balance to provide both thermal cracking resistance~~ and machinability to a proper level, S is 0.2% or less. S is preferably 0.005-0.2%, more preferably 0.03-0.2%.

Delete the paragraph bridging pages 16/17 and insert the following paragraph:

S forms sulfides with Mn and Cr to improve seizure resistance~~thermal cracking resistance~~, and S-containing inclusions to decrease thermal cracking resistance, with its internal lubrication function improving machinability. However, when S exceeds 0.2%, excess S-containing inclusions are formed, resulting in the deterioration of thermal cracking resistance. To form sulfides in good balance to provide thermal cracking resistance, seizure resistance ~~and S-containing inclusions in good balance to provide both thermal cracking resistance~~ and machinability to a proper level, S is 0.2% or less, preferably 0.05-0.2%, more preferably 0.1-0.2% ~~or less~~.

Delete the paragraph bridging pages 18/19 and insert the following paragraph:

The piston formed by a proper material selected from various types of cast steel having heat resistance, corrosion resistance and wear resistance has sufficient high-temperature yield strength, high-temperature rigidity and thermal cracking resistance, even when the piston

temperature is elevated to 450°C or higher, and when the combustion pressure is elevated to 20 MPa or more. For instance, the cast steel has higher thermal cracking resistance and high-temperature rigidity than those of spheroidal graphite cast iron, etc.. Accordingly, the cast steel suffers from less thermal cracking in a combustion chamber subjected to high temperatures and nearby lips, and keeps a shape dimension because of light weight even when main portions are made thinner, and is resistant to such problems as wear, blowby, scuffing, seizure, and breakage, without damaging the performance of an engine. Further, because the cast steel reduces the weight of a piston and makes the compression height smaller, it is possible to reduce the weight of the entire engine, increase the power of the engine while reducing its fuel consumption, reduce engine noises, and downsize an engine ~~room~~. The restriction of the area ratio of eutectic carbides secures sufficient ductility (room-temperature elongation), causing no cracking and breakage during use in an engine, in the production of parts, in assembling to the engine, etc.

Page 21, delete the last full paragraph and insert the following paragraph:

Table 1 shows the chemical compositions (% by mass) of samples used in Examples, Comparative Examples and Conventional Examples ~~Examples and Comparative Examples~~. The samples of Examples 1-20 were made of α-P cast steel having a small Cr content (within the composition range of the present invention), and the samples of Comparative Examples 1-4 were made of α-P cast steel outside the composition range of the present invention. Comparative Example 1 used cast steel containing too little Nb, Comparative Example 2 used cast steel containing too much Nb, Comparative Example 3 used cast steel containing too much S, and Comparative Example 4 used cast steel containing too little Nb and too much S. Conventional Example 1 used spheroidal graphite cast iron (JIS FCD 600) disclosed in JP 10-85924 A, and Conventional Example 2 used forged steel disclosed in U.S. Patent 5,136,992.

Page 29, delete the first full paragraph and insert the following paragraph:

As is clear from Table 2, the area ratio of eutectic carbides was less than 1% in Examples 1-3 and 14, and within the preferred range (1-35%) of the present invention in Examples 4-13 and 15-20. The average equivalent-circle diameter of the eutectic carbides was within the preferred range (3 μm or less) of the present invention in Examples 1-20. The number of eutectic colonies each having an area of 50 μm^2 or more per a unit area was within the preferred range (10/mm^2 or more) of the present invention in Examples other than Examples 1-3, 7 and 14. ~~On the other hand, any one other than Comparative Example 2 was outside the preferred range of the present invention~~. In the cast steel in which the number of eutectic colonies was less than 10/mm^2, there appear a lot of eutectic colonies crystallized in the microstructure, which were connected without dispersion to form coarse colonies.

Page 35, delete Table 4 and insert the following new Table 4:

Table 4

No.[1]	Young's Modulus (GPa) at			Thermal Cracking Resistance		Average Linear Thermal Expansion Coefficient Between Room Temperature and 500°C (x 10^{-6}/°C)
	350°C	450°C	500°C	Maximum Crack Length (μm)	Evaluation	
Example 1	194	177	161	90	Good	12.9
Example 2	193	173	160	94	Good	12.8
Example 3	195	176	160	87	Good	12.4
Example 4	192	175	158	80	Good ~~Excellent~~	12.5
Example 5	191	176	158	80	Good ~~Excellent~~	12.1
Example 6	193	177	157	88	Good	12.2
Example 7	194	171	153	95	Good	11.8
Example 8	196	172	153	94	Good	11.9
Example 9	197	173	155	55	Good ~~Excellent~~	12.1
Example 10	197	164	157	51	Good ~~Excellent~~	12.5
Example 11	198	168	156	47	Excellent	12.4
Example 12	197	168	158	50	Excellent	11.9
Example 13	199	173	154	90	Good	12.6
Example 14	195	173	155	89	Good	12.8
Example 15	194	172	155	87	Good	12.6
Example 16*	193	168	154	98	Good	12.4
Example 17	198	171	155	49	Excellent	12.4
Example 18	195	174	157	60	Good ~~Excellent~~	12.2
Example 19	195	168	155	46	Excellent	12.0
Example 20*	195	168	155	46	Excellent	12.0
Comp. Ex. 1	194	174	152	117	Fair	12.1
Comp. Ex. 2	197	174	155	100	Good	12.6

Comp. Ex. 3	194	171	151	178	Poor	12.6
Comp. Ex. 4	195	176	148	156	Poor	12.6
Conv. Ex. 1	175	160	135	325	Poor	13.1
Conv. Ex. 2	194	174	155	121	Fair	14.0